

Title (en)
ISOXAZOLINE DERIVATIVES AND HERBICIDES

Title (de)
ISOXAZOLINDERIVATE UND HERBIZIDE

Title (fr)
DERIVES D'ISOXAZOLINE ET HERBICIDES

Publication
EP 1405853 A4 20040721 (EN)

Application
EP 02743670 A 20020620

Priority
• JP 0206183 W 20020620
• JP 2001187679 A 20010621

Abstract (en)
[origin: EP1405853A1] 3-Mercapto-isoxazoline derivatives (I) are new. 3-Mercapto-isoxazoline derivatives of formula (I) and their salts are new. [Image] R 11-4C haloalkyl; R 2H, 1-6C alkyl, R 1, 3-8C cycloalkyl or 3-8C cycloalkyl-1-3C alkyl; R 3, R 4H, 1-6C alkyl or 3-8C cycloalkyl; or R 3+R 43-7C spiroalkyl; or R 2+R 35-8 membered ring; R 5, R 6H or 1-6C alkyl; Y : pyrrolyl, pyrazolyl, isothiazolyl, oxazolyl, imidazolyl, pyridazinyl, pyrimidinyl, pyrazinyl, triazinyl, triazolyl, oxadiazolyl, benzothienyl, indolyl, benzoxazolyl, benzimidazolyl, benzisoxazolyl, benzoisothiazolyl, indazolyl, 'fusaradinyl', quinoxaliny, quinazolinyl, cinnoliny or benzotriazolyl all optionally substituted by 1-6 Q and optionally fused to a 5-8 membered ring (optionally substituted by 1-4 halo); n : 0-2; Q : OH, halo, 1-6C alkyl (optionally monosubstituted by Q 1), R 1, 3-8C cycloalkyl, OA 1, OR 1, O-3-8C cycloalkyl, 3-8C cycloalkyl-1-3C alkoxy, SA 1, SR 1, 2-6C alkenyl, 2-6C alkynyl, 2-6C alkenyloxy, 2-6C alkynyloxy, SO-1-6C alkyl, SO 2A 1, SOR 1, SO 2R 1, OSO 2-1-6C alkyl, OSO 2R 1, 1-6C acyl, COR 1, COOH, COO-1-6C alkyl, CN, CONH 2 (optionally substituted by 1-6C alkyl or Ph 1), 1-6C acyloxy, OCOR 1, NO 2, amino (optionally substituted by 1-6C alkyl, Ph 1, 1-6C acyl, COR 1, COCH 2Ph, CPh, SO 2-1-6C alkyl, SO 2R 1, SO 2CH 2Ph or SO 2Ph) or optionally substituted Ph, OPh, SPh, Het, OHet, SHet, SPh, SO 2Ph, SOHet, SO 2Het, OSO 2Ph, CPh, COCH 2Ph, COOPh or COOCH 2Ph; Q 1OH, 3-8C cycloalkyl (optionally substituted by halo or 1-6C alkyl), O-1-6C alkyl, S-1-6C alkyl, SO 2-1-6C alkyl, COO-1-6C alkyl, 2-6C haloalkenyl, amino (optionally substituted by 1-6C alkyl, 2-6C acyl, COR 1, SO 2-1-6C alkyl or SO 2R 1), CONH 2 (optionally substituted by 1-6C alkyl or Ph), 2-6C acyl, COR 1, =N(O-1-6C alkyl), CN, Ph 1 or OPh 1; Q 2COO-1-6C alkyl, CN, CONH 2, CONH-1-6C alkyl, CON(1-6C alkyl) 2 or optionally substituted Ph or Het; A 11-6C alkyl (optionally monosubstituted by Q 2); Het : aromatic heterocycl; and Ph 1optionally substituted Ph. ACTIVITY : Herbicide. In tests, 3-(5-chloro-1-methyl-3-trifluoromethyl-1H-pyrazol-4-ylmethylsulfonol)-5-chloromethyl-5-methyl-2-isoxazoline (Ia) (1000 g/ha) gave greater than 90 % control of Echinochloa crus-galli and Monochoria vaginalis. MECHANISM OF ACTION : None given.

IPC 1-7
C07D 413/12; **A01N 43/80**

IPC 8 full level
A01N 43/80 (2006.01); **A01N 43/82** (2006.01); **A01N 43/90** (2006.01); **C07D 413/12** (2006.01)

CPC (source: EP US)
A01N 43/80 (2013.01 - EP US); **A01N 43/82** (2013.01 - EP US); **A01N 43/90** (2013.01 - EP US); **C07D 413/12** (2013.01 - EP US)

Citation (search report)
• [E] EP 1364946 A1 20031126 - KUMIAI CHEMICAL INDUSTRY CO [JP], et al
• [E] WO 03010165 A1 20030206 - KUMIAI CHEMICAL INDUSTRY CO [JP], et al
• [PX] EP 1203768 A1 20020508 - KUMIAI CHEMICAL INDUSTRY CO [JP] & WO 0112613 A1 20010222 - KUMIAI CHEMICAL INDUSTRY CO [JP], et al
• See also references of WO 03000686A1

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Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)
EP 1405853 A1 20040407; **EP 1405853 A4 20040721**; **EP 1405853 B1 20101103**; DE 60238194 D1 20101216; JP 4317445 B2 20090819; JP WO2003000686 A1 20041007; US 2004259734 A1 20041223; US 7875606 B2 20110125; WO 03000686 A1 20030103

DOCDB simple family (application)
EP 02743670 A 20020620; DE 60238194 T 20020620; JP 0206183 W 20020620; JP 2003507089 A 20020620; US 48037604 A 20040612